Abstract

A method of recovering a stripe of erasure coded data begins with sending query messages to storage devices. The method continues with receiving query reply messages from at least a first quorum of the storage devices. The query reply messages include a minimum number of the stripe blocks needed to decode the stripe. Following this, the stripe of erasure coded data is encoded. Next, a write message is sent to each of the storage devices, which include a timestamp and the stripe block destined for the storage device. The method concludes with receiving a write reply message from at least a second quorum of the storage devices indicating that the stripe block was successfully stored. The first and second quorums each meet a quorum condition of a number such that any two selections of the number of the stripe blocks intersect in the minimum number of the stripe blocks.